



**FULL PORT VALVE ASSEMBLY  
SEAL REPAIR KIT  
FOR: ME825-3F-SRK AND ME825-4F-SRK**

**!!!WARNING!!!**

READ AND UNDERSTAND ALL INSTRUCTIONS INCLUDED WITH THIS REPAIR KIT  
RELIEVE ALL PRESSURE FROM SYSTEM BEFORE REMOVING VALVE FOR SERVICE

**NOTE:** Numbers in brackets [ ] refer to the number in the valve component list.



**WARNING:** These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

**A. Disassembly**

1. **EVACUATE ALL PRESSURE FROM SYSTEM BEFORE ANY DISASSEMBLY OR REPAIR.**
2. Remove Handwheel Nut [9], Handwheel Washer [8], and Handwheel [7] from Stem [4aa] and retain.
3. Remove (4) Bonnet Bolts [6] from Bonnet Assembly [4] and retain.
4. Remove Nameplate [5] and retain.
5. Remove Bonnet Assembly [4] from Body [1].
6. Remove Garlock Gasket [3] and Bonnet O-Ring [2] and discard.
7. Remove Valve Shaft Gland [4d] from Bonnet [4b] and retain.
8. Remove Valve Shaft Gland O-Ring [4c] from Valve Shaft Gland [4d] and discard Valve Shaft Gland O-Ring [4c].
9. Remove (2) V-Packs [4e], Male Adapter [4h], Inner O-Ring [4f], Outer O-Ring [4g], Compression Spring [4i], and Valve Shaft Gland Seal [4j] from Bonnet [4b]. Discard (2) V-Packs [4e], Male Adapter [4h], Inner O-Ring [4f], Outer O-Ring [4g], and Valve Shaft Gland Seal [4j]. Retain Compression Spring [4i].
10. Remove Hinge Pin [4k] from Bonnet [4b] and retain.
11. Remove Stem Assembly [4a] from Bonnet [4b].
12. Remove E-Clip [4ah] from one side of Cam Pin [4aj] and retain.
13. Remove (4) Nylon Clevis Washers [4ag], Clevis Bushing [4ai], Cam Pin [4aj], and Stem Clevis [4af] from Clapper Assembly [4ak]. Discard Clevis Bushing [4ai] and (4) Nylon Clevis Washers [4ag].
  - a. Discard Nylon Clevis Washers and Clevis Bushing. Retain other components from this step.
14. Remove Cotter Pin [4ak3] from Valve Stem [4ak4] and retain.
15. Remove Lock Nut [4ak2] from Valve Stem [4ak4] and retain.
16. Remove Valve Stem [4ak4] from Hinge [4ak1]. Remove (10) Ball Bearings [4ak5] from Valve [4ak7] and retain.
17. Remove Valve Stem [4ak4] from Valve [4ak7] and retain.
18. Remove Valve O-Ring [4ak6] from Valve [4ak7] and discard.
19. Remove Clevis Retainer [4ac] from Stem Clevis [4af] and retain.
20. Remove (2) Clevis Bearings [4ad] from Stem [4aa] and retain.
21. Remove Clevis Retainer [4ac] from Stem [4aa] and retain.
22. Remove Nylon Stem Washer [4ab] from Stem [4aa] and discard.
23. Remove Ball [4ae] from Stem Clevis [4af]. Clean and retain both.
24. Remove Valve Seat [10] and Valve Seat O-Ring [11] from Body [1] and discard.
25. Inspect Body [1] and clean if necessary, be sure interior is free of dirt, residue, and foreign particles.

**Marshall Excelsior Company**

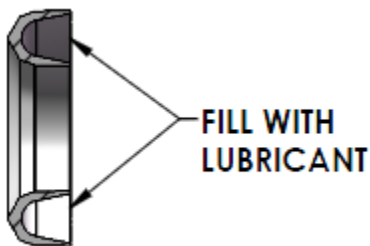
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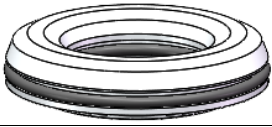
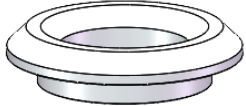
## ME825-3F-SRK AND ME825-4F-SRK

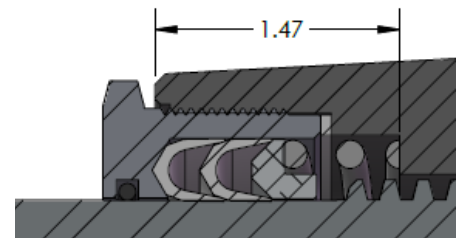
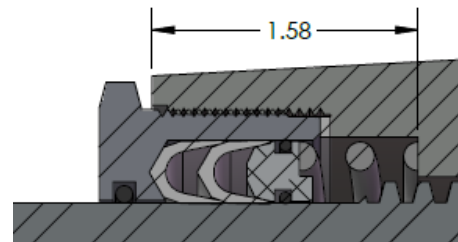
### B. Reassembly

1. Ensure Valve Seat O-Ring [11] is installed in Valve Seat [10]. Apply suitable lubricant to O-ring and Loctite #271 to threads of Valve Seat. Install Valve Seat into Body [1], tighten securely.
2. Apply suitable lubricant to Valve O-Ring [4ak6] and install into Valve [4ak7].
3. Install Valve Stem [4ak4] into Valve [4ak7]. Install (10) Ball Bearings [4ak5] through hole in side of Valve [4ak7].
4. Install Valve Stem [4ak4] into Hinge [4ak1]. Install Lock Nut [4ak2] onto Valve Stem [4ak4] and tighten securely. Install Cotter Pin [4ak3] into Valve Stem [4ak4].
5. Install Nylon Stem Washer [4ab], Clevis Retainer [4ac], and (2) Clevis Bearings [4ad] onto Stem [4aa].
6. Apply Loctite #271 to threads of Clevis Retainer [4ac] and install Stem Clevis [4af], tighten securely.
7. Install Clevis Bushing [4ai] into Stem Clevis [4af].
8. Install (2) Nylon Clevis Washers [4ag] onto Stem Clevis [4af] one on each side to retain Clevis Bushing [4ai].
9. Install (1) E-Clip [4ah] and (1) Nylon Clevis Washer [4ag] onto Cam Pin [4aj].
10. Align hole in Stem Clevis [4af] with Slot of Clapper Assembly [4ak] and install Cam Pin [4aj].
11. Install (1) Nylon Clevis Washer [4ag] and (1) E-Clip [4ah] onto Cam Pin [4aj].
12. Install Stem Assembly [4a] into Bonnet [4b].
13. Align Hinge [4ak1] with hole in Bonnet [4b] and install Hinge Pin [4k].
14. Install Compression Spring [4i] into Bonnet [4b].
15. Install Valve Shaft Gland Seal [4j] into Bonnet [4b].
16. Apply suitable lubricant to Valve Shaft Gland O-Ring [4c] and install into Valve Shaft Gland [4d].
17. Apply Lubriplate or equivalent grease to outside of (2) V-Packs [4e] and inside of Valve Shaft Gland [4d]. Fill inside of (2) V-packs [4e] with lubricant as shown.



18. Determine which Male Adapter [4h] is required for this valve, based on which Male Adapter was in Bonnet [4b] previously, or depth of spring pocket as noted below. Discard other Male Adapter from kit, it will not be used.

Pocket Depth	4h Male Adapter	
1.58"	Thicker with O-rings [4f+4g]	
1.47"	Thinner, L-shape	



19. Install (2) V-Packs [4e] and correct Male Adapter [4h] into Valve Shaft Gland [4d].
20. Apply Loctite #565 or equivalent thread seal to threads of Valve Shaft Gland [4d] and install into Bonnet [4b], tighten securely.
21. Apply suitable lubricant to Bonnet O-Ring [2]. Install Bonnet O-Ring [2] and Garlock Gasket [3] into Body [1].
22. Install Bonnet Assembly [4] into Body [1].
23. Place Nameplate [5] onto Bonnet [4b].
24. Apply Anti-Seize to threads of (4) Bonnet Bolts [6] and install into Body [1], retaining Nameplate [5] and Bonnet Assembly [4], tighten securely.
25. Install Handwheel [7], Handwheel Washer [8], and Handwheel Nut [9] onto Stem [4aa], tighten securely.
26. Connect the valve assembly outlet to a pressure source of at least 150 PSI. Check for leaks at all joints using a suitable leak detector solution such as "Marshall Excelsior" leak detector.

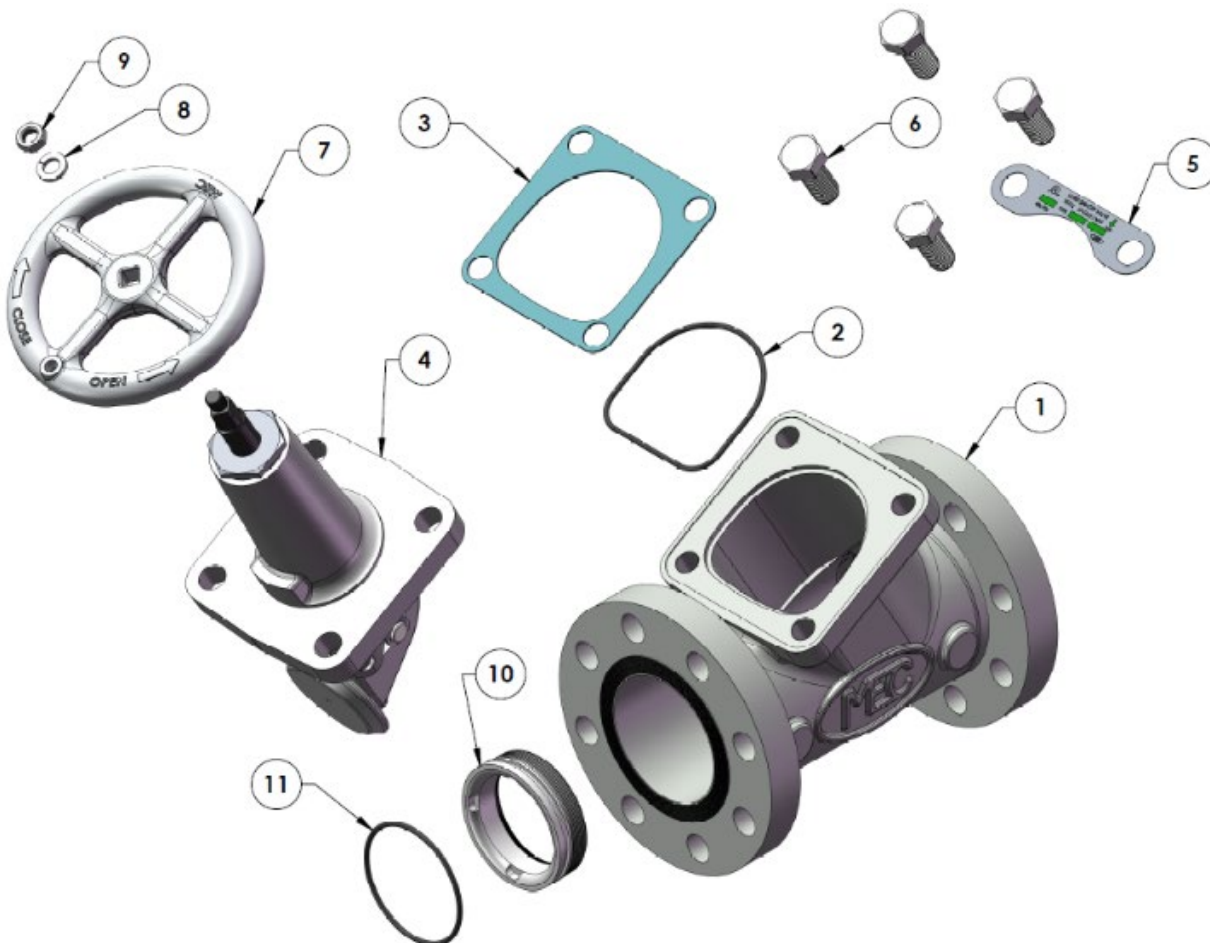
**CAUTION: DO NOT USE THE VALVE IF ANY JOINT CONTINUES TO LEAK UNDER PRESSURE.**

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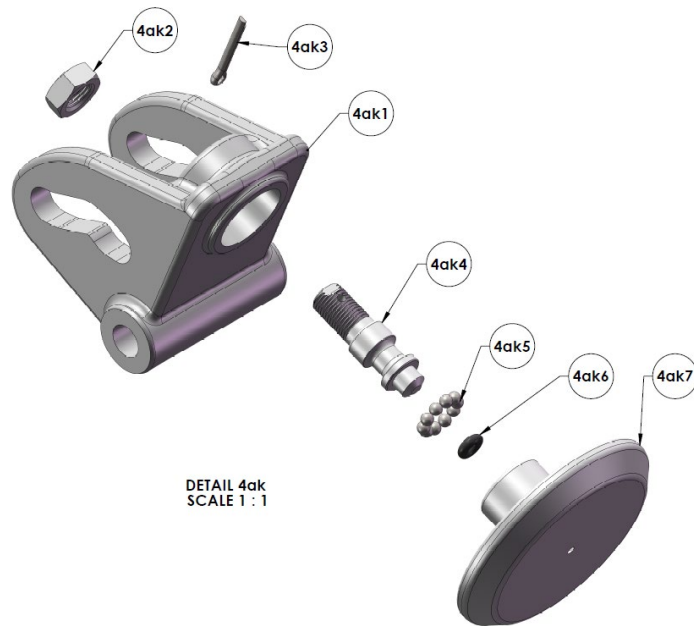
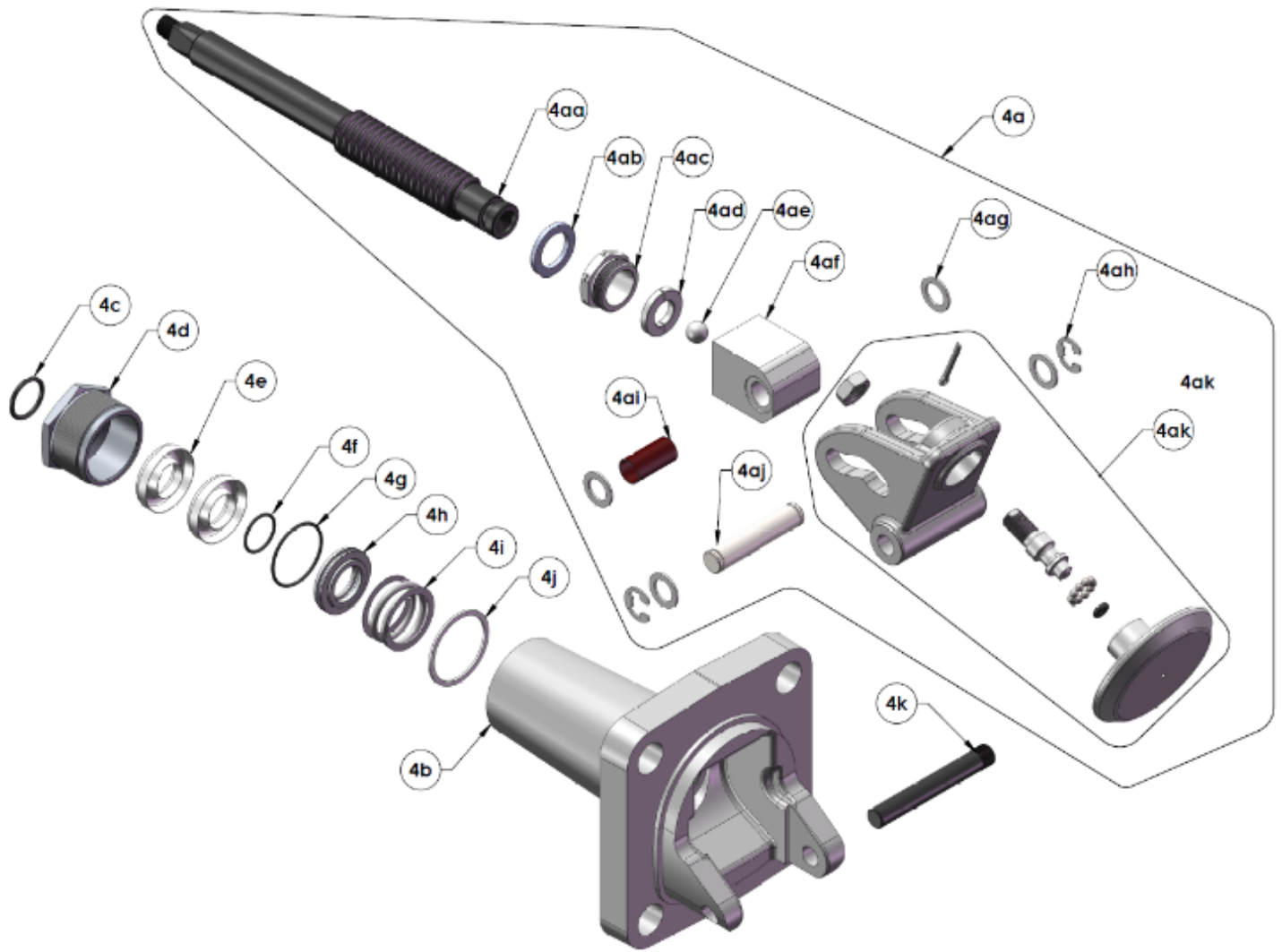
### C. Component List

(Parts in *italics* included in kit)

1. Body
2. *Bonnet O-Ring*
3. *Garlock Gasket*
4. Bonnet Assembly
  - 4a. Stem Assembly
    - 4aa. Stem
    - 4ab. *Nylon Stem Washer*
    - 4ac. Clevis Retainer
    - 4ad. Clevis Bearing, Qty: 2
    - 4ae. Ball
    - 4af. Stem Clevis
    - 4ag. *Nylon Clevis Washer, Qty: 4*
    - 4ah. E-Clip, Qty: 2
    - 4ai. *Clevis Bushing*
    - 4aj. Cam Pin
    - 4ak. Clapper Assembly
      - 4ak1. Hinge
      - 4ak2. Lock Nut
      - 4ak3. Cotter Pin
      - 4ak4. Valve Stem
      - 4ak5. Ball Bearing, Qty: 10
      - 4ak6. *Valve O-Ring*
      - 4ak7. Valve
  - 4b. Bonnet
  - 4c. *Valve Shaft Gland O-Ring*
  - 4d. Valve Shaft Gland
  - 4e. *V-Pack, Qty: 2*
  - 4f. *Inner O-Ring*
  - 4g. *Outer O-Ring*
  - 4h. *Male Adapter*
  - 4i. Compression Spring
  - 4j. *Valve Shaft Gland Seal*
  - 4k. Hinge Pin
5. Nameplate
6. Bonnet Bolts, Qty: 4
7. Handwheel
8. Handwheel Split Washer
9. Handwheel Nut
10. *Valve Seat*
11. *Valve Seat O-Ring*



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DETAIL 4ak  
SCALE 1:1